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CIDE-B Antibody

Catalog # ASC10115

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	O70303
Other Accession	AF041377, 3114593
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	24800
Conjugate	Unconjugated
Application Notes	CIDE-B antibody can be used for detection of CIDE-B by Western blot at 0.5 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	12684
Other Names	CIDE-B Antibody: CIDE-B, AI790179, 1110030C18Rik, Cell death activator CIDE-B, Cell death-inducing DFFA-like effector B, cell death-inducing DNA fragmentation factor, alpha subunit-like effector B
Target/Specificity	Cideb; CIDE-B antibody has no cross activity to CIDE-A.
Reconstitution & Storage	CIDE-B antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CIDE-B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Cideb {ECO:0000303|PubMed:26733203, ECO:0000312|MGI:MGI:1270844}
Function	Lipid transferase specifically expressed in hepatocytes, which promotes unilocular lipid droplet formation by mediating lipid droplet fusion (PubMed:26733203). Lipid droplet fusion promotes their enlargement, restricting lipolysis and favoring lipid storage (PubMed:26733203). Localizes on the lipid droplet surface, at focal contact sites between lipid droplets, and mediates atypical lipid droplet fusion by promoting directional net neutral lipid transfer from the smaller to larger lipid droplets (By similarity). The transfer direction may be driven by the internal pressure difference between the contacting lipid droplet pair (By similarity). Promotes lipid exchange and

	lipid droplet fusion in both small and large lipid droplet- containing hepatocytes (PubMed:26733203). In addition to its role in lipid droplet fusion, also involved in cytoplasmic vesicle biogenesis and transport (PubMed:19187774, PubMed:23297397, PubMed:30858281). Required for very-low-density lipoprotein (VLDL) lipidation and maturation (PubMed:19187774, PubMed:23297397). Probably involved in the biogenesis of VLDL transport vesicles by forming a COPII vesicle coat and facilitating the formation of endoplasmic reticulum-derived large vesicles (PubMed:23297397). Also involved in sterol-regulated export of the SCAP-SREBP complex, composed of SCAP, SREBF1/SREBP1 and SREBF2/SREBP2, by promoting loading of SCAP-SREBP into COPII vesicles (PubMed:30858281). May also activate apoptosis (PubMed:9564035).
Cellular Location	Lipid droplet. Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side. Golgi apparatus. Cytoplasmic vesicle, COPI-coated vesicle Note=Enriched at lipid droplet contact sites
Tissue Location	Highly enriched in the liver.

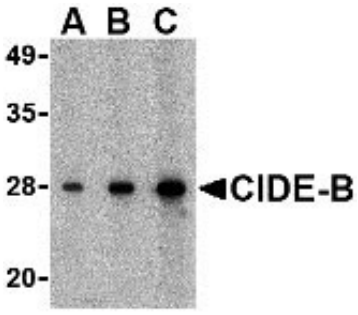
Background

CIDE-B Antibody: Apoptosis is related to many diseases and induced by a family of cell death receptors and their ligands. Cell death signals are transduced by death domain containing adapter molecules and members of the caspase family of proteases. These death signals finally cause the degradation of chromosomal DNA by activated DNase. DFF45/ICAD has been identified as inhibitor of caspase activated DNase DFF40/CAD. DFF45 related proteins CIDE-A and CIDE-B (for cell death-inducing DFF-like effector A and B) were recently identified. CIDE contains a new type of domain termed CIDE-N, which has high homology with the regulatory domains of DFF45/ICAD and DFF40/CAD. Expression of CIDE-B induces apoptosis, which is inhibited by DFF45. CIDE-B is a DFF45-inhibitable effector that promotes cell death and DNA fragmentation. CIDE-B is expressed mainly in liver and at lower levels in spleen, kidney, peripheral blood lymphocytes and bone marrow.

References

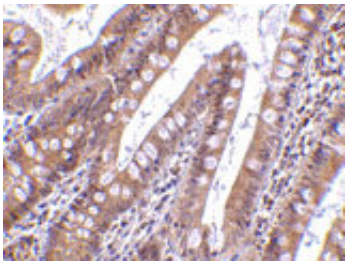
Inohara N, Koseki T, Chen S,et al. CIDE, a novel family of cell death activators with homology to the 45 kDa subunit of the DNA fragmentation factor. EMBO J. 1998; 17:2526-33
Inohara N, Koseki T, Chen S, et al. Identification of regulatory and catalytic domains in the apoptosis nuclease DFF40/CAD. J. Biol. Chem.1999; 274:270-4.

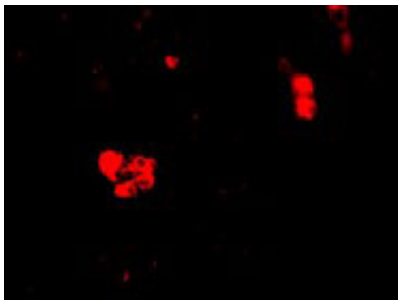
Images



Western blot analysis of CIDE-B in mouse small intestine tissue lysate with CIDE-B antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.

Immunohistochemistry of CIDE-B in human small intestine tissue with CIDE-B antibody at 5 µg/mL.





Immunofluorescence of CIDE-B in Human Small Intestine cells with CIDE-B antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.